



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,280	01/10/2006	Christine Linke	2002P01602WOUS	8863
7590 07/18/2008				
John T Winburn Bsh Home Appliance Corporation 100 Bosch Boulevard New Bern, NC 28562			EXAMINER SMITH, RICHARD A	
			ART UNIT 2841	PAPER NUMBER
			MAIL DATE 07/18/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/540,280

**Applicant(s)**

LINKE ET AL.

**Examiner**

R. Alexander Smith

**Art Unit**

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 April 2008.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-34 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-34 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 22 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-893)  
4) ☐ Interview Summary (PTO-413)  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_  
Paper No(s)/Mail Date \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08 August 2000 has been entered.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims in order to provide antecedent basis which is concurrently lacking. Therefore, the following features must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

For claim 34: the limitations of "a covering member fitted over said thermochromic layer having a plurality of openings formed therein disposed at predetermined locations to be in registry with predetermined threshold temperature value indications along said thermochromic layer, said openings being shaped to resemble food items associated with said food-based threshold temperature values"

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Specification*

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). In reviewing the claims the following elements and limitations in the claims do not have antecedent support that is clearly described or conveyed in the specification. Correction of the following is required.

For claim 34: the limitations of "a covering member fitted over said thermochromic layer having a plurality of openings formed therein disposed at predetermined locations to be in registry with predetermined threshold temperature value indications along said thermochromic layer, said openings being shaped to resemble food items associated with said food-based threshold temperature values"

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 34 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim contains subject matter, i.e., *"a covering member fitted over said thermochromic layer having a plurality of openings formed therein disposed at predetermined locations to be in registry with predetermined threshold temperature value indications along said thermochromic layer, said openings being shaped to resemble food items associated with said food-based threshold temperature values"*, which was not described in the specification, including the claims, drawings and abstract, in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

*Claim Rejections - 35 USC § 102*

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 13, 14 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,161,557 to Suzuki et al.

Suzuki et al. discloses a temperature-indicating element for a refrigeration device (column 5 lines 22-24), comprising: a backing (14); a thermochromic layer applied to said backing for indicating a predetermined desired temperature; and (12 and 14), and said thermochromic layer enclosed between said backing and a transparent protective layer (16), said transparent layer formed from a casting compound (column 9, lines 33-35 and column 13 lines 24-25), and the backing being enclosed between the casting compound and a film (if the adhesive 18 is a film).

8. Claims 13, 14, 19-22 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,738,549 to Plimpton.

Plimpton discloses a temperature-indicating element, comprising:  
a backing (30); a thermochromic layer (20a-k) applied to said backing for indicating a predetermined desired temperature; and said thermochromic layer enclosed between said backing and a transparent protective layer (the upper portion of the casing material column 4, lines 51-54),

said transparent layer formed from a casting compound (by being placed in a mold, then filled and allowed to cure),

said backing enclosed between said casting compound and a film (via the insertable inlays or the advertising indicia as a plate or strip 50, column 4 line 59 to column 5 line 2),

including said film printed on the side facing said casting compound (so that the advertising can be seen),

including a preferred orientation mark (the advertising indicia and the thermochromic indicia are orientation marks so that the device can be mounted to read the text right side up),

said backing embedded in a backing element and covered by said transparent layer (column 4, lines 47-56).

With respect to claim 13: The Applicant should note that the preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

With respect to claims 22 and "for mounting said element in the refrigeration device":  
This intended use has not been given any patentable weight since it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987).

*Claim Rejections - 35 USC § 103*

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).



10. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al.

Suzuki et al. teaches all that is claimed as discussed in the above rejections of claims 13, 14 and 19. Furthermore, Suzuki et al. discloses that casting can be used for the multiple layers, that the thermochromic solution is vacuum treated to remove air bubbles, and dried, i.e., cured, at room temperature (column 13 lines 42-59), and protective layer can be from any suitable material but prefers polyvinyl butyral, and that the backing can be from polyurethane (column 8 lines 27-39).

Suzuki et al. does not disclose said casting compound formed from a plastic room temperature curable material, said casting compound is a polyurethane material, said casting compound formed from a vacuum treated material which is then cured.

With respect to the casting compound (as the transparent protective layer) being a vacuum treated material and a room temperature curable material: Suzuki et al. discloses that both the protective coating and the thermochromic solution can be cast. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the vacuum treated material and room curable for both layers in order to prevent bubbles from ruining the integrity of the protective coating and to apply the protective coating and cure without extra costs of heating.

With respect to the casting compound being polyurethane: As noted above Suzuki et al. teaches that any suitable material can be used for the transparent protective coating and does suggest the use of polyurethane for the backing. Therefore, the Applicant's limitations regarding

polyurethane is only considered to be the use of "optimum" or "preferred" materials that a person having ordinary skill in the art at the time the invention was made using routine experimentation would have found obvious to provide to make the casting compound disclosed by Suzuki et al. since they are well known types of materials used to make layers and since it has been held to be a matter of obvious design choice and within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use of the invention. In re Leshen, 125 USPQ 416.

11. Claims 16, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plimpton.

Plimpton teaches all that is claimed as discussed in the above rejections of claims 13, 14, 19-22 except for said backing formed from an aluminum metal plate and the casting compound being from polyurethane material.

Plimpton discloses that the backing (30) can be a strip of any suitable material such as plastic (column 3 lines 21-22), that the advertising can be provided on a plate or strip (50), and that the casing can be made from a number of synthetic materials (column 2 lines 20-28). Therefore, the Applicant's limitations regarding the backing being aluminum metal plate and the casing being of polyurethane, absent any criticality, are only considered to be the use of "optimum" or "preferred" materials that a person having ordinary skill in the art at the time the invention was made using routine experimentation would have found obvious to provide to make the backing and the casting compound disclosed by Plimpton since they are well known types of materials used to make backings and protective layers respectively and since it has been held to

be a matter of obvious design choice and within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use of the invention, In re Leshen, 125 USPQ 416. In this case to provide a backing of a suitable material which conducts heat well and a moldable, water impermeable and partially transparent protective layer.

12. Claims 23, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plimpton in view of US 6,385,869 to MacWilliams et al.

Plimpton teaches all that is claimed as discussed in the above rejections of claims 13, 14, 19-22 except for said thermochromic layer provided with an orientation mark discernible at room temperature, said film provided with a complementary mark complementary to said orientation mark of said thermochromic layer.

MacWilliams et al. discloses a label and method for applying wherein the label (700) includes alignment features (703 and 704) having corresponding features on the underlying member (column 6 lines 26-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to add an orientation mark and a complementary mark, as taught by MacWilliams et al., to the individual thermochromic portions (20a-k) and the backing in order to assure correct orientation of the portions to the backing, as taught by MacWilliams et al.

13. Claims 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,738,549 to Plimpton in view of GB 2,318,870 to Hicken.

Plimpton discloses a temperature-indicating element, comprising:  
a backing (30); a thermochromic layer (20a-k) applied to said backing for indicating a predetermined desired temperature; and said thermochromic layer enclosed between said backing and a transparent protective layer (the upper portion of the casing material column 4, lines 51-54),

said transparent layer formed from a casting compound (by being placed in a mold, then filled and allowed to cure),

said backing enclosed between said casting compound and a film (via the insertable inlays or the advertising indicia as a plate or strip 50, column 4 line 59 to column 5 line 2),

including said film printed on the side facing said casting compound (so that the advertising can be seen),

including a preferred orientation mark (the advertising indicia and the thermochromic indicia are orientation marks so that the device can be mounted to read the text right side up),

said backing embedded in a backing element and covered by said transparent layer (column 4, lines 47-56).

Furthermore, Plimpton discloses that liquid crystal agents can be chosen that work from 15°F to 160°F (i.e., below freezing, column 2, lines 15-19).

Plimpton does not teach

said thermochromic layer including thermochromic pigment elements that change color at about +4°C for visually indicating a predetermined desired temperature, and  
said backing formed from an aluminum metal plate.

Hickens discloses a temperature indicator and teaches that thermochromic pigments can be used to indicate defrosting preferably in the temperature range of 5°C to 7°C (abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device, taught by Plimpton, by replacing the liquid crystal with thermochromic pigment elements, as taught by Hickens, and to use a temperature of about 4°C, as suggested by Hickens, in order to increase the versatility, the usages and the marketability of the device.

Plimpton discloses that the backing (30) can be a strip of any suitable material such as plastic (column 3 lines 21-22), that the advertising can be provided on a plate or strip (50), and that the casing can be made from a number of synthetic materials (column 2 lines 20-28). Therefore, the Applicant's limitations regarding the backing being aluminum metal plate and the casing being of polyurethane, absent any criticality, are only considered to be the use of "optimum" or "preferred" materials that a person having ordinary skill in the art at the time the invention was made using routine experimentation would have found obvious to provide to make the backing and the casting compound disclosed by Plimpton since they are well known types of materials used to make backings and protective layers respectively and since it has been held to be a matter of obvious design choice and within the general skill of a worker in the art to select a

known material on the basis of its suitability for the intended use of the invention, In re Leshen, 125 USPQ 416. In this case to provide a backing of a suitable material which conducts heat well and a moldable, water impermeable and partially transparent protective layer.

With respect to claim 25: The Applicant should note that the preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

With respect to claim 28 and "for mounting said element in the refrigeration device": This intended use has not been given any patentable weight since it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987).

14. Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plimpton and Hicken as applied to claims 25-28 above, and further in view of US 6,385,869 to MacWilliams et al.

Plimpton and Hicken teach all that is claimed as discussed in the above rejections of claims 25-28 except for said thermochromic layer provided with an orientation mark discernible at room temperature, said film provided with a complementary mark complementary to said orientation mark of said thermochromic layer.

MacWilliams et al. discloses a label and method for applying wherein the label (700) includes alignment features (703 and 704) having corresponding features on the underlying member (column 6 lines 26-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to add an orientation mark and a complementary mark, as taught by MacWilliams et al., to the individual thermochromic portions (20a-k) and the backing in order to assure correct orientation of the portions to the backing, as taught by MacWilliams et al.

15. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Plimpton and Hicken as applied to claims 25-28 above, and further in view of WO 01/46661 to Marques et al.

Plimpton and Hicken teach all that is claimed as discussed in the above rejections of claims 25-28 except for a refrigerator device including a temperature zone in the refrigeration device and said temperature-indicating element located in said temperature zone backing for indicating said predetermined desired temperature in said temperature zone.

Marques et al. discloses a refrigerator device including a temperature zone in the refrigerator device and a thermochromic indicating element within the temperature zone backing for indicating said predetermined desired temperature in said temperature zone. Therefore, it

would have been obvious to one of ordinary skill in the art at the time of the invention to modify the temperature range of the thermochromic indicating element, taught by Plimpton and Hicken, to suit a temperature zone for a refrigerator device along with the zone, as taught by Marques et al., in order to provide more uses and increased marketability.

16. Claims 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2002/0149003 to Lucht et al. in view of US 4,030,482 to Navato and US 6,335,200 to Tiru et al.

Lucht et al. discloses a temperature-indicating element, comprising: a thermochromic layer, said thermochromic layer having a pigment of a given color and changing to a pigment of a different color (see 0021, 0037 and 0039) when the refrigeration device passes below a predetermined desired temperature (via the discussion of food below 38°F and of proper function of freezers in 0007, also see 0022 and the temperature range of -40°C to 180°C in 0018).

Lucht et al. does not disclose  
a backing;  
said thermochromic layer applied to said backing,  
said thermochromic layer enclosed between said backing and a transparent protective layer; and  
an indicator display including a contrast indication element for indicating that the refrigeration device has passed below said predetermined desired temperature, said contrast indication element being disposed relative to said thermochromic layer such that said contrast



indication element visually contrasts with the pigment of the different color and the extent of the visual contrast of said contrast indication element with the pigment of the different color being such that this visual contrast with the pigment of the different color is greater than a visual contrast of said contrast indication element with the pigment of the given color, whereby a user can perceive via the visual contrast of said contrast indication element with the pigment of the different color that the temperature of the refrigeration device has passed below said predetermined desired temperature; and

the limitations of claim 33.

Navato discloses a thermochromic layer (9) and teaches that this layer is packaged via a backing (3); said thermochromic layer applied to said backing (figure 3), said thermochromic layer enclosed between said backing and a transparent protective layer (either 13 or 17); and having an indicator display including a contrast indication element (7). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the layer, taught by Lucht et al., by enclosing the layer between a backing and transparent protective layer and adding a contrast indication element, as suggested by Navato, in order to protect the layer from the environment, to provide the layer as a completely packaged and useable device, and to provide a comparison element to highlight the color change of the layer.

Tiru et al. disclose a temperature indicating element for freezable items (see abstract and column 1 lines 16-34) and teaches an indicator display including a contrast indication element (blue background 5) for indicating that the refrigeration device has passed below said

predetermined desired temperature, said contrast indication element being disposed relative to the temperature indicating component (vial 3 with color changing component 1) such that said contrast indication element visually contrasts with the component of the different color and the extent of the visual contrast of said contrast indication element with the component of the different color being such that this visual contrast with the component of the different color is greater than a visual contrast of said contrast indication element with the component of the given color, whereby a user can perceive via the visual contrast of said contrast indication element with the component of the different color that the temperature of the refrigeration device has passed below said predetermined desired temperature (column 3 line 55 through column 4 line 27); and

wherein the extent of the visual contrast of said contrast indication element with the component of the different color is such that said contrast indication element is visually perceptible when the temperature of the refrigeration device has passed below said predetermined desired temperature (yellow component against the blue background) and the visual contrast of said contrast indication element with the component of the given color, which is the respective component color of said backing (blue component against the blue background) when the temperature of the refrigeration device is above said predetermined desired temperature, is so insignificant that said contrast indication element is substantially visually imperceptible (in a broad sense is met by blue on blue).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the thermochromic layer, its pigment, and the contrast indication element, taught by Tiru et al. and Navato, to include the visual contrast wherein the color is different below the predetermined desired temperature, as taught by Tiru et al. in order to highlight the

lower temperatures should these lower temperatures be the temperatures of concern for the product being monitored.

***Response to Arguments***

17. Applicant's arguments filed April 28, 2008 with respect to claims 13-34 have been fully considered but they are not persuasive.

With respect to claim 13 and the arguments that Suzuki '557, and similarly for Plimpton '549, does not teach the use of thermochromic pigments, the temperature range, and the temperature, i.e., 4°C, inside the refrigerator as argued by Applicant are not persuasive for the following reasons.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the use of thermochromic pigments, and the temperature range, and inside a refrigerator) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Furthermore, in response to applicant's argument that Suzuki, and similarly for Plimpton, does not provide the temperature for inside the refrigerator: The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of

the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case Suzuki discloses a temperature indicating device, wherein the indicating material can be chosen according to the temperature or the temperature range needed, and teaches that the compositions are available for (temperature) leak detection for a refrigerator.

With respect to claim 25 and the arguments that Suzuki '557, and similarly for Plimpton '549, does not teach the use of thermochromic pigments and 4°C: In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, claim 25 was rejected as being unpatentable over Plimpton in view of Hicken wherein Hicken was relied upon for providing the teaching of thermochromic pigments and a temperature of about 4°C.

With respect to claim 32 and the above arguments: These arguments are moot since claims 32 and 33 have been newly rejected using a different new combination of references.

With respect to the adhesive backing argument on page 10, with respect to Santacaterina '995 adds nothing to the Plimpton '549 discussion as argued on page 11, and the argument on

page 13: These arguments are addressing limitations found in newly added claim 34 which are moot.

*Allowable Subject Matter*

18. Claim 34 would be allowable if the applicant can overcome the rejection(s) under 35 U.S.C. 112, 1<sup>st</sup> paragraph, set forth in this Office Action.

19. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

*Conclusion*

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in PTO-892 and not mentioned above disclose related indicating elements.

Of particular note are the following prior art references which disclose images and/or layering: D478822, 7258073, 6241386, 5202677, 4859360, 4509533, GB-2199981 and DE-2751179.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. Alexander Smith whose telephone number is 571-272-2251. The examiner can normally be reached on Monday through Friday from 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean A. Reichard can be reached on 571-272-1984. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R.A.Smith/

July 22, 2008

R. Alexander Smith  
Primary Examiner Art Unit 2841